

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001694**Date Inspected:** 19-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Le Feng, Ye Yong Jun**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Mock-ups and OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

Bay 1

The Quality Assurance Inspector observed the Production Monitoring Test (PMT) for Production Panel DP-059-001, partial joint penetration welds located in Bay #1. ZPMC was observed performing gas metal arc welding (GMAW) for the root pass and submerged arc welding (SAW) for the cover pass, on gantry machine number 2. The Quality Assurance Inspector recorded the welding parameters at the welder's station and found the parameters to meet the minimum requirements of the welding procedure specification Dual process WPS-B-T-2342-U1 (U-rib)-3. The Parameters and welders were recorded in an on site for future review.

The Quality Assurance Inspector observed ZPMC squaring the length of closed ribs on the milling machine. Eight ribs were stacked and being milled simultaneously. The Quality Assurance Inspector measured the ribs to be approximately 8.5 meters in length, 12 millimeters in thickness and 790 millimeters in width. The Quality Assurance Inspector observed ZPMC drilling bolt holes in the closed ribs. ZPMC was observed beveling closed ribs in preparation for the partial joint penetration connection to the deck plate. ZPMC Quality Control would measure the bevel angle and record the values on the closed rib. The general appearance of the bevel appeared to be rough and contain sharp edges. After beveling, ZPMC was observed bending the closed ribs and performing dimensional inspections.

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Bay 7

The Quality Assurance Inspector was informed by Quality Assurance inspector Timothy McClendon of two separate issues occurring on various floor beams. ZPMC has elected to fillet weld the holdback area on all of the stiffeners. The approved shop drawings require a holdback. Assistant Structures Material Representative was informed of the discrepancy. Below is a digital photograph illustrating the discrepancy.

The Quality Assurance Inspector observed where a longitudinal stiffener on various floor beams is required to be fillet welded over two different thicknesses of material. ZPMC has elected to stop welding in that area over the transition due to a gap measured to be as much as 9 millimeters. Assistant Structures Material Representative was informed of the discrepancy. Below is a digital photograph illustrating the 9 millimeter gap with the use of a taper gauge.

Bay 8

The Quality Assurance Inspector observed ZPMC welding temporary lifting attachments to several tower diaphragm plates.



Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
